



Harris County  
**Public Health**  
Building a Healthy Community

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**Harris County Public Health Partners with Microsoft on High Tech Mosquito  
Traps to Detect Mosquito-Borne Illnesses**

*State-of-the-Art Technology Will Enhance Efforts to Detect Mosquitoes that Carry Disease*

**Houston, Texas (June 21, 2016)** – Harris County has been protecting Houston/Harris County residents from mosquito-borne illnesses for over 50 years. This year, Harris County Public Health's (HCPH), Mosquito Control Division has been chosen by Microsoft to partake in [Project Premonition](#), a research project aimed at reducing mosquito-borne diseases using cutting-edge technology. Project Premonition has been piloted outside of the U.S., but this is the first time that a U.S.-based mosquito control program has been selected to test the new state-of-the-art devices. The Microsoft-designed mosquito traps will improve and speed up the process to detect mosquitoes carrying diseases.

The sleek-looking computerized traps are able to detect and transmit a wide-range of data on the mosquitos, such as the time each mosquito was trapped, as well as the precise temperature, barometric pressure and humidity at the moment of capture. In addition, the highly efficient traps can ignore other non-target mosquito species and insects like flies, moths and other critters. Essentially the traps would allow for Harris County Public Health entomologists to track specific mosquitoes that could carry Zika or other known harmful diseases in the area.

“Our mosquito control program is one of the nation’s foremost and we are extremely excited about our partnership with Microsoft. They have combined science and technology creating new traps that are faster and more efficient. In turn, this will allow us to be proactive in our plan to fight disease carrying mosquitoes in a targeted manner, increasing our capability to protect our residents from mosquito-borne illnesses like Zika,” said Dr. Umair A. Shah, Executive Director of Harris County Public Health.

“Emerging infectious diseases, such as Zika, are notoriously difficult to predict and stop. We believe autonomous systems and cloud computing have enormous potential to improve

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monitoring and prediction. This partnership with Harris County's state-of-the-art mosquito control program creates a unique opportunity to apply and shape next-generation technologies together with public health leaders," said Microsoft researcher and project lead Ethan Jackson.

Ten traps will be placed in the Houston/Harris County area for the first time this month, and are being trained to collect only the types of mosquitoes that Mosquito Control wants to track (Aedes and Culex). In addition to the traps and developing analytics models, the Project Premonition team will be working on ways in which drone technology could be used both for the short-term goal of helping detect mosquito hotspots, and the long-term goal of deploying and collecting the novel, autonomous mosquito traps.

To date, Harris County Public Health Mosquito Control has **not detected** the presence of Zika, Dengue or Chikungunya in the local mosquito population with its current surveillance system. To date, two mosquito samples have tested positive for West Nile Virus, and those areas have been sprayed to reduce the risk of the spread of the disease.

As we move into the summer months, enjoy the outdoors but remember to protect yourself and your family from mosquito-borne disease. Your best defense against being bitten is simply to be prepared. "[Prevent the Bite Day and Night.](#)"

#### Personal Protection

- When outdoors, use an EPA-registered insect repellent containing the active ingredient DEET, Picaridin, oil of lemon eucalyptus, or IR3535. Follow product instructions
- If possible, wear long-sleeved shirts and long pants

#### Mosquito-Proof Your Property

- Remove/empty containers that can hold water such as tires, flowerpots and toys.
- Change water in birdbaths and pet water bowls every 3 to 5 days.
- Keep rain gutters free of debris.
- Make sure screens are in good condition.

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*HCPH is the local public health agency for the Harris County, Texas jurisdiction. It provides a wide variety of public health activities and services aimed at improving the health and well-being of the Harris County community. For more information, please visit HCPH at [www.hcphtx.org](http://www.hcphtx.org).*

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